

REMARKS

Claims 1-70 were pending in this application. By this Amendment, claims 1, 23, 46 and 58-69 have been amended to clarify the claimed subject matter, and claim 70 has been canceled, without prejudice or disclaimer. Accordingly, claims 1-69 are presented for continued examination, with claims 1, 23, 46 and 58 being in independent form.

Claims 46-69 were rejected under 35 U.S.C. §101 as purportedly directed to non-statutory subject matter.

By this Amendment, claims 47 and 58-69 have been amended to clarify the claimed subject matter.

Claim 47 has been amended to expressly indicate that the drawing processing method is machine implemented and that the method produces the concrete, useful and tangible result that the number of operations performed by the image formation apparatus is reduced.

Claims 58-69 have been amended to be directed to a computer readable medium tangibly embodying instructions executable by a computer to perform the recited operations.

Accordingly, withdrawal of the rejection under 35 U.S.C. §101 is requested.

Claims 1-70 were rejected under 35 U.S.C. §103(a) as purportedly unpatentable over U.S. Patent 6,456,298 to Kunimasa et al. in view of U.S. Patent No. 6,100,998 to Nagao et al.

Applicant has carefully considered the Office Action and the cited art, and respectfully submits that independent claims 1, 23, 46 and 58, as amended, are patentable over the cited art, for at least the following reasons.

The present application relates to processing of graphical drawing instructions, and more specifically such processing wherein it is determined whether a drawing process corresponding to a

particular graphical drawing instruction can be omitted (in order to improve efficiency and conserve resources), and if it is determined that such drawing process can be omitted, the corresponding graphical drawing instruction is made invalid and the drawing process corresponding to the graphical drawing instruction is not performed. Each of independent claims 1, 23, 46 and 58 of the present application addresses these features, as well as additional features.

Kunimasa, as understood by applicant, proposes an approach for image drawing wherein when a drawing instruction including drawing logical arithmetic process instruction is input, a drawing instruction converting means converts such input drawing instruction to a drawing object and a drawing logical arithmetic process instruction, and it is determined whether the drawing logical arithmetic process instruction has content to be drawn without logical arithmetic process or not. When the drawing logical arithmetic process instruction is determined to have content to be processed without drawing logical arithmetic process, the drawing object converting unit converts the determined drawing logical arithmetic process instruction and drawing object to another instruction and drawing object which do not require the drawing logical arithmetic process. The drawing process based on the other instruction is performed.

Kunimasa, as acknowledged in the Office Action, does not teach or suggest making a graphical drawing instruction invalid if it is determined that a drawing process corresponding to the graphical drawing instruction can be omitted, and not performing the drawing process corresponding to the graphical drawing instruction.

Nagao, as understood by applicant, proposes a print processor wherein print data is generated in description language from document or text data prepared by application programs, the print data is parsed to generate tokens, the tokens are output to an intermediate data generating unit, and the

intermediate data generating unit interprets the received tokens and executes drawing instructions based on interpretation of the tokens.

None of the portions of Nagao cited in the Office Action teaches or suggests that a graphical drawing instruction is made invalid if it is determined that a drawing process corresponding to the graphical drawing instruction can be omitted, and the drawing process corresponding to the graphical drawing instruction is not performed.

Nagao, col. 9, lines 39-41, proposes storing “drawing-related information” furnished by instructions from an instruction executing unit 311. It is indicated in the Office Action that “drawing-related information” is subjected to the “broadest possible interpretation”.

However, even under the “broadest possible interpretation”, one skilled in the art would not have understood Nagao to be teaching or suggesting that a graphical drawing instruction is made invalid if it is determined that a drawing process corresponding to the graphical drawing instruction can be omitted, and the drawing process corresponding to the graphical drawing instruction is not performed.

First, Nagao makes no mention of making any instruction (much less a graphical drawing instruction) invalid.

Second, Nagao says nothing whatsoever regarding information indicating whether an instruction is valid or invalid. Thus, one skilled in the art would not associate the term “drawing-related information” in Nakao with information indicating whether an instruction is valid or invalid.

Nakao, column 10, lines 23-32, proposes transferring drawing instructions for drawing text, graphics and images, as well as drawing state instructions for setting colors, line attributes and other information necessary for drawing from token interpreting unit 310 to an instruction executing unit

311, and the instruction executing unit 311 in turn executes the drawing instructions and drawing state instructions.

However, Nakao does not teach or suggest omitting or not performing any of such instructions.

Nakao, column 19, line 35 through column 20, line 34, proposes that band a judging unit 81 which receives drawing instructions outputs information designating the types of the received instructions and the bands to be drawn by these instructions, to an instruction counting unit 82, the instruction counting unit 82 counts the number of text, graphic and image drawing instructions for each of the bands involved, and a predicting process unit 83 utilizes the counts and expressions (2) through (4) for obtaining a predicted generating time per band, a predicted rasterizing time per band and a predicted intermediate data volume per band, respectively. Nakao further proposes that such predictions (that is, of generating time per band, rasterizing time per band and intermediate data volume per band) may be omitted if certain conditions are met.

However, while Nakao states that predictions of generating time per band, rasterizing time per band and intermediate data volume per band can be omitted, Nakao simply does not teach or suggest that the drawing process corresponding to a graphical drawing instruction is omitted.

The cited art simply does not teach or suggest that a graphical drawing instruction is made invalid if it is determined that a drawing process corresponding to the graphical drawing instruction can be omitted, and the drawing process corresponding to the graphical drawing instruction is not performed, as provided by the subject matter of claim 1.

Independent claims 23, 46 and 58 are patentably distinct from the cited art for at least similar reasons.

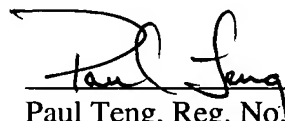
Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 1, 23, 46 and 58, and the claims depending therefrom, are patentable over the cited art.

In view of the amendments to the claims and remarks hereinabove, Applicant submits that the application is now in condition for allowance. Accordingly, Applicant earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this response and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,



Paul Teng, Reg. No. 40,837
Attorney for Applicant
Cooper & Dunham LLP
Tel.: (212) 278-0400